

REMARKS

Claim 25 is being added. Claim 5 is being cancelled only to allow entry of new claim 25 without an additional fee. No claims are being amended. After entry of this amendment claims 1-4, 6-14, 17-18 and 21-25 will be pending in the application.

New claim 25 is supported by the specification as filed at page 8, lines 5-10 which discloses the use of amino modified silicone materials as a textile-treating agent and the claims as filed which disclose quaternary ammonium compounds as a textile-treating agent.

This amendment is being filed under 37 C.F.R. 1.116 governing amendment after final rejection. This amendment is appropriate for entry under Rule 1.116 since it does not raise new issues and places the application in allowable condition and/or places the application in better form for consideration of appeal.

Rejection of claims 1-14, 21-22 and 24 Under 35 U.S.C. §103.

Claims 1-14, 21-22 and 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Homonoff et al. (EP 557,678) in view of Pike et al. (U.S. Patent No. 5,605,749).

As stated in MPEP §2143, to establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicant respectfully notes that the following remarks do not invoke the holdings or reasoning of In re Keller, 642 F.2d 413 (CCPA 1981) and In re Merck & Co, 800 F.2d 1091 (Fed. Cir. 1986) in supporting a statement that the references are being attacked individually. To clarify this point, Applicant is clearly asserting that the references must be read, not in isolation, but for what they fairly teach as a whole.

There is no suggestion or motivation to combine the references.

Claim 1 states in one pertinent part: "A nonwoven composite . . . further comprising at least one textile-treating agent applied to the untreated composite, said textile-treating agent selected from silicones, derivatives of silicones and quaternary ammonium compounds, the treating agent comprising an active-ingredient level of at least 3% by weight of the fibres".

The Office Communication admits on page 3 that the Homonoff reference does "not disclose adding a treatment composition comprising silicones, silicone derivatives, or quaternary ammonium compounds". The Office Action then goes on to assert that "Pike et al disclose the hydrophilicity of a fabric may be improved by adding silicone surfactants in amounts between 0.1 and 5% It would have been obvious to a person having ordinary skill in the art at the time of the invention to include silicone treating agent into the fabric of Homonoff et al in order to give the fabric increased hydrophilicity, as taught by Pike et al."

The Homonoff reference on page 2 indicates that hydroentangled spunbonded composite fabrics find use in the medical field as disposable apparel such as surgical gowns and drapes. In fact, the Homonoff reference on page 3, lines 7 - 10, indicates that "Another object of the present invention is to provide a new and improved composite spunbonded fabric of the type described that exhibits barrier and softness properties comparable to spunlaced fabrics while at the same time exhibiting the substantially higher cross-directional strength properties conventionally associated with spunbonded fabrics." Thus, the Homonoff reference specifically teaches that an object of that invention is to provide a composite fabric that will act as a barrier to the aqueous fluids often found in the medical field. See also page 2, line 32, which indicates that the spunlaced webs used in medical applications are fluid repellant. The Homonoff reference on page 6, lines 1 -16, indicates that it is desirable for the fabric to prevent penetration by water. Example 1 of the Homonoff reference indicates that the resulting fabrics were given a "fluorocarbon water repellant finish". Example 2 of the Homonoff reference indicates that the fabric was treated with a "repellency" mix. Example 3 indicates that the fabric therein was first dipped in a "hydrophobic latex binder system"

and subsequently dipped into a "fluorocarbon water repellent finish". The fabrics of Examples 4 and 5 were treated with the same hydrophobic binder and fluorocarbon water repellent finish as Example 3. In sum, it is very important to at least one embodiment of the Homonoff reference to provide a hydrophobic web material that will have barrier properties to aqueous fluids. As is known, a hydrophobic material tends to repel water while a hydrophilic material has an affinity to mix with water.

The Office Communication statement that, with underlining added: "it would have been obvious to include the silicone treating agent into the fabric of Homonoff in order to give the fabric increased hydrophilicity". The Homonoff reference teaches that a hydrophobic web material (and therefore decreased hydrophilicity) is desirable. Thus the Office communication reasoning is counter to the Homonoff reference teaching. Applicant respectfully asserts that there is no suggestion or motivation to combine the Homonoff and Pike references. Claims 1-14, 21-22 and 24 are not suggested by the Pike and Homonoff references, singly or in combination, and are patentable for at least this reason.

The References Teach Away From Each Other

It is a well-established "general rule" that references that teach away cannot serve to create a prima facie case of obviousness. In re Gurley, 27 F.3d 551, 553, 31 USPQ 2d 1131, 1132 (Fed Cir. 1994). A "reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the Applicant." Winner v. Wang, 202 F.3d 1340 (Fed Cir. 2000) citing Gurley at 553.

As discussed above, the Homonoff reference is directed to a fabric that is desirably treated with hydrophobic materials. As stated by the Office Communication, the Pike reference is directed to treatment of a fabric with hydrophilic materials. The teachings of the Homonoff reference (hydrophobic treatment of a fabric) are contrary to, and away from, the Pike reference (hydrophilic additive for a fabric). Claims 1-14, 21-22 and 24 are not suggested by the Pike and Homonoff references, singly or in combination, and are patentable for at least this reason.

There Is No Expectation Of Success In Making The Proposed Combination

Obviousness does not require absolute predictability, however at least some degree of predictability is required. In discussing predictability, the courts have recognized the general unpredictability of the chemical arts. "In the field of chemistry generally, there may be times when the well-known unpredictability of chemical reactions will alone be enough to create reasonable doubt as to the accuracy of a particularly broad statement put forward as enabling support for a claim. In re Marzocchi, 169 USPQ 367, 368-370 (CCPA 1971). "Many compounds have a known relationship but are not equivalents for substitution in different reactions. A mere relationship is an insufficient basis for the necessary predictability of success to sustain a rejection under section 103." In re Mercier, 185 USPQ 774, 779 (CCPA 1975). Evidence showing there was no reasonable expectation of success may support a conclusion of nonobviousness. MPEP §2143.02 citing In re Rinehart, 189 USPQ 143 (CCPA 1976).

A person of ordinary skill in the art is careful to extrapolate from references within the chemical arts. As discussed above, the Homonoff reference is directed to a fabric that is desirably treated with hydrophobic materials. As stated by the Office Communication, the Pike reference is directed to treatment of a fabric with hydrophilic materials. Given the contrary teachings of the Homonoff and Pike references, a person of ordinary skill would have no expectation of success in combining them. Claims 1-14, 21-22 and 24 are not suggested by the Pike and Homonoff references, singly or in combination, and are patentable for at least this reason.

Claim 3 is patentable for additional reasons.

Claim 3 recites in one pertinent part that: "the nonwoven web is formed by carding". As is known in the art, carding is an operation where discontinuous, short fibers are mechanically aligned to form a nonwoven web.

The Homonoff reference is directed to a valuable process for improving the properties of a substantially continuous filament spunbonded composite fabric. The

Homonoff reference at page 2, lines 29 *et seq.* just discusses the use of fabrics made from discontinuous fiber and indicates that such fabrics have “poorer cross-directional strength characteristics and therefore higher MD/CD ratios”. Thus, the Homonoff reference recognizes the existence of nonwoven fabrics made from discontinuous fibers, and addresses only a method of improving nonwoven web material comprised of substantially continuous filaments.

The Office Communication at page 3 indicates, “With regard to claim 3, Pike et al disclose that carded staple fiber webs may be equally useful as spunbonded fabrics . . . It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a carded fabric rather than a spunbonded fabric in Homonoff et al, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.”

Clearly, the Homonoff reference recognizes the existence of both discontinuous and continuous fiber webs and chooses only the continuous fiber webs as being suitable for the intended use therein. There is no teaching in the Homonoff reference that discontinuous fiber webs can be used therein. Further, the Homonoff inventors would surely know what types of webs are suitable for their invention. Thus, it is not understood to the Applicant why the Office Communication indicates that a discontinuous fiber web would be suitable for intended use of the Homonoff reference when the Homonoff inventors rejected such a use. There is no suggestion to combine the Homonoff and Pike references in search of the features of pending claim 3 and there is no expectation of success in combining the Homonoff and Pike references in search of the features of pending claim 3. Applicant respectfully traverses the rejection of claim 3 and asserts that this claim is patentable for at least this reason.

Rejection of claims 1-2, 4-14, 21-22 and 24 Under 35 U.S.C. §103.

Claims 1-14, 21-22 and 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Homonoff et al. (EP 557,678) in view of Zotto (U.S. Patent No. 4,781,973).

All of the limitations of the pending claims are not taught or suggested by the cited references.

Claim 1 recites:

A nonwoven composite comprising a first fibrous layer in the form of a nonwoven web to which a second fibrous layer is joined by fibre entanglement to form an untreated composite having a first elongation and further comprising at least one textile-treating agent applied to the untreated composite, said textile-treating agent selected from silicones, derivatives of silicones and quaternary ammonium compounds, the treating agent comprising an active-ingredient level of at least 3% by weight of the fibres in the untreated composite to form the nonwoven composite having a second elongation greater than the first elongation.

Thus, claim 1 recites in one pertinent part that the nonwoven composite with applied treating agent has an elongation that is greater than the elongation of the untreated composite without treating agent. Applicant's specification at page 5, lines 5-10 indicates that the textile treating agent may allow the web material fibers to slip against each other and increase elongation. The elongation effect is clearly disclosed in Applicant's examples.

The Office communication asserts:

It would have been obvious to a person having ordinary skill in the art at the time of the invention to include organopolysiloxane treating agent into the fabric of Homonoff et al in order to give the fabric increased water, oil, and dirt resistance, as taught by Zotto. With regard to the elongation limitation in claim 1, although neither Homonoff et al nor Zotto explicitly teach the limitation of greater elongation after treatment, it is reasonable to presume that said limitations are inherent to the invention. Support for such presumption is found in the use of similar materials (i.e. nonwoven fibrous layers entangled) and in the similar production steps (i.e. treatment with an organopolysiloxane textile treating agent) used to produce the fabric. The burden is upon the Applicant to prove otherwise.

This statement admits the elongation feature of Applicant's claims is not taught in the Homonoff or Zotto references and speculates as to the inherent composition and properties of the Zotto material.

The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. §§102 or 103. See MPEP §2112.

However, "[t]he doctrine of inherency is available only when the prior inherent event can be established as a certainty. That an event may result from a given set of circumstances is not sufficient to establish anticipation. Probabilities are not sufficient . . . A prior inherent event cannot be established based upon speculation or where a doubt exists." Ethyl Molded Products Co. v. Betts Package Inc., 9 USPQ2d 1001, 1032-1033 (E.D. Ky. 1988). The Court of Appeals for the Federal Circuit has reinforced this position stating: "[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). To rely on the theory of inherency in rejecting a claim under 35 U.S.C. §§102 or 103, ". . . the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). Further, the chemical arts are known to be unpredictable so that a person of ordinary skill is cautious about extrapolating from teachings within those arts. See, for example, In re Marzocchi, 169 USPQ 367, 368-370 (CCPA 1971), acknowledging the unpredictability within the chemical arts. The Zotto reference

Applicant respectfully draws the Examiner's attention to the Zotto text at column 4, line 67 to column 5, line 6, which states, with underlining added:

Within the previously set forth weight ranges it is essential to the present invention that sufficient alkylalkoxypolysiloxane be added to the organopolysiloxane resin that a film is formed on a surface to which the mixture is applied. Generally, the organopolysiloxane resin will dry to a powder but in combination with sufficient alkyl-alkoxypolysiloxane resin, a surface film will form.

Zotto is clear that it is essential that the silicone material therein forms a film over the fibers of the fabric to which it is applied. It would appear that the silicone material of Zotto would form a film with the fibrous web of Homonoff when applied thereto. For a material to form a film over a web material it must form a film over the individual fibers. As is well known, it is difficult to form a film over the closely arranged and overlapping individual fibers in a web material without also forming a film between the fibers in that

web material. Thus, it appears that the silicone material of Zotto would adhere or bind the fibers of the Homonoff web material together. Therefore the silicone resin material of Zotto arguably REDUCES elongation of a treated web material as compared to that untreated web material. Arguendo, it appears that the silicone resin materials disclosed in Zotto would not result in a resin treated composite having an elongation greater than the elongation of the same entangled composite without the resin treatment.

Claims 1-2, 4-14, 21-22 and 24 are not suggested by the Zotto and Homonoff references, singly or in combination, and are patentable for at least this reason.

The References Teach Away From the pending claims

A "reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the Applicant." Winner v. Wang, 202 F.3d 1340 (Fed Cir. 2000) citing Gurley at 553.

As admitted by the Office Communication: "neither Homonoff et al nor Zotto explicitly teach the limitation of greater elongation after treatment," As discussed above, the Zotto arguably REDUCES elongation of a treated web material as compared to that untreated web material. The teachings of the Zotto reference, singly or in combination with the Homonoff reference, teach away from the features of Applicant's claims. Claims 1-2, 4-14, 21-22 and 24 are not suggested by the Zotto and Homonoff references, singly or in combination, and are patentable for at least this reason.

There Is No Expectation Of Success In Making The Proposed Combination

A person of ordinary skill in the art is careful to extrapolate from references within the chemical arts. As admitted by the Office Communication: "neither Homonoff et al nor Zotto explicitly teach the limitation of greater elongation after treatment," As discussed above, the Zotto arguably REDUCES elongation of a treated web material as compared to that untreated web material. Given the teachings of the Zotto reference, a person of ordinary skill would have no expectation of success in combining the Zotto and Homonoff references to arrive at the features recited in the pending claims. Claims 1-2, 4-14, 21-22 and 24 are not suggested by the Zotto and Homonoff references, singly

or in combination, and are patentable for at least this reason.

Rejection of claims 17-18 and 23 Under 35 U.S.C. §103.

Claims 17-18 and 23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Homonoff et al. (EP 557,678) in view of Zotto (U.S. Patent No. 4,781,973) and further in view of Spengler et al. (U.S. Patent No. 5,709,925). More specifically the Office communication asserts:

Homonoff et al discloses using the fabric in a molded substrate, but does not disclose additional layers that would be used in that purpose. Spengler et al disclose using a decorative layer and foam layer in addition to the fibrous layer when making a molded substrate for a door panel (column 3, lines 5 – 59). It would have been obvious to a person having ordinary skill in the art at the time of the invention to provide an additional foam layer and a decorative layer to the fibrous layer of Homonoff et al in order to provide sufficient padding and good esthetics when applying the substrate into a molded part, as taught by Spengler et al.

As discussed above, the Homonoff and Zotto references are not properly combined. Even when improperly combined the Homonoff and Zotto references do not teach or suggest all of the features of the pending claims.

The Spengler reference discloses, at best, only a foam layer and a decorative layer. The Spengler reference fails to make up for the deficiencies of the Zotto and Homonoff references with regard to features recited in claims 17 – 18 and in 23. Claims 17 – 18 and 23 are not obvious over the combination of Homonoff and Zotto and Spengler and are patentable for at least this reason.

New claim 25.


New claim 25 recites use of a textile-treating agent selected from amino modified silicones and quaternary ammonium compounds. Such textile-treating agents are not taught, suggested or disclosed in the cited references.

In summary, Applicant has addressed each of the rejections within the present Office Action. It is believed the application now stands in condition for allowance, and prompt favorable action thereon is respectfully solicited.

Respectfully submitted,

COLIN BEVERIDGE et al

Date: 10-8-04
750 Main Street - Suite 1400
Hartford, CT 06103-2721
(860) 527-9211

By: 
James E. Piotrowski
Registration No. 43,860
Alix, Yale & Ristas, LLP
Attorney for Applicants

G:\AYR saved docs\Filing Docs\Dexnon or Aw\dexnon110pcus\dexnon110pcus 10-04 response reva.doc